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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------------|---------------------|------------------|
| 09/884,226 | 06/20/2001 | Giovanni Traverso | Q65045 | 3000 |
| 7590 04/21/2005 | | | | |
| KENT B. CHAMBES HAMILTON & TERRILE P O BOX 203518 AUSTIN, TX 78720 | | EXAMINER WONG, BLANCHE | | |
| | | ART UNIT 2667 PAPER NUMBER | | |

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|--|--|
| Office Action Summary | Application No. | Applicant(s)  | |
| | 09/884,226 | TRAVERSO ET AL. | |
| | Examiner | Art Unit | |
| | Blanche Wong | 2667 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-10, 13-18 is/are objected to.
- 8) ☒ Claim(s) 19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. **Claims 1-18**, are drawn to a method of aligning data and an alignment circuit, classified in class 370, subclass 517.

II. **Claim 19**, is drawn to a delay line, classified in class 375, subclass 371.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because neither a method of aligning data nor an alignment circuit requires a delay line. The subcombination has separate utility such as the function of a delay line is to delay a signal input which can be data flow.

Invention I is a method for aligning data flows by measuring and comparing the phase of the input data flow and reference input, and an alignment circuit to adjust the delay time accordingly. There is more than just using a delay line to control a delay time. Invention II is a stand-alone delay line and has a stand-alone function.

3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with David J. Cushing on April 4, 2005 a provisional election was made with traverse to prosecute the invention of Group I,

claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claim 19 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

5. The drawings are objected to because drawing elements in **Fig. 1 and 2** need descriptive labels.

Examiner suggests removing abbreviations not obvious to a person of ordinary skill in the art, such ME, RD, ROT, CD, etc., but obviously important to the invention, in order to increase legibility.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: AW on p.5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The disclosure is objected to because of the following informalities: misspelling on p. 2, ln. 3. The word – contolling – should be spelled "controlling".

Appropriate correction is required.

Claim Objections

8. **Claim 11** is objected to because of the following informalities: Applicant is suggested to remove "apt to" in these claims in order to make the limitation more positive for examination.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claim 1,11,12** are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Farwell (U.S. Pat No. 5,870,445).

With regard to claim 1, Farwell discloses measuring (phase comparator 25, col. 2, ln. 55) the phase of said input data flow (I(1) comprises the input to the variable delay line, col. 3, ln. 21) with respect to the phase of a reference signal (a master reference clock signal RCLK, col. 2, ln. 39 and variable delay 13, col. 3, ln. 16-18), for controlling (output of the phase comparator 25, col. 2, ln. 56; CONTROL in Fig. 3) the delay time introduced by a delay line in said input data flow depending on the measured phase, wherein the phase of the input data flow is measured in a time interval substantially corresponding to the transit time of a sure data sequence (free of discontinuities, col. 1, ln. 61) containing a logic transition (maintains pulse fidelity, col.. 1, ln. 62), said sure data sequence being comprised in said input data flow.

With regard to claim 11, Farwell discloses a phase equalizer (phase comparator 25, col. 2, ln. 55) for equalizing the phase of a reference signal (a master reference clock signal RCLK, col. 2, ln. 39) with the phase of the input data flow (I(1) comprises the input to the variable delay line, col. 3, ln. 21) and for driving, through appropriate selection signals (adjusts the delay of the variable delay circuit, col. 2, ln. 56), a variable delay line (Fig. 3 is a variable delay line) operating on the input data flow, wherein a detector (shift register 51, col. 3, ln. 46-61) is provided for the transit of a sure data sequence (free of discontinuities, col. 1, ln. 61) containing a logic transition (maintains pulse fidelity, col.. 1, ln. 62) comprised in the input data flow.

With regard to claim 12, Farwell further discloses an enable signal (CONTROL in Fig. 3; output of phase comparator 25 is CONTROL)

Allowable Subject Matter

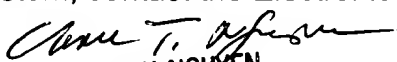
11. **Claims 2-10,13-18** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RW


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